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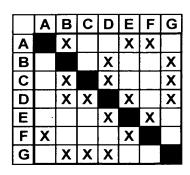
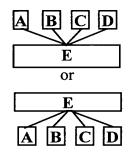


FIG. 1 - PRIOR ART





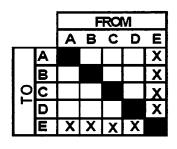
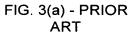


FIG. 2(a) - PRIOR ART

FIG. 2(b) - PRIOR ART

FIG. 2(c) - PRIOR ART

| | Α | F | E | D | В | С | G |
|---|---|--------------|--------------|--------------|--------------|--------------|--------------|
| Α | | \mathbb{X} | \mathbb{X} | | | | |
| F | X | | X | | | | |
| E | | \mathbb{X} | | X | | | |
| D | | | X | | \mathbb{X} | \mathbb{X} | \mathbb{X} |
| В | | | | X | | | \mathbb{X} |
| С | | | | \aleph | \aleph | | \aleph |
| G | | | | \mathbb{X} | \aleph | \mathbb{X} | |



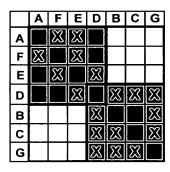


FIG. 3(b) - PRIOR ART

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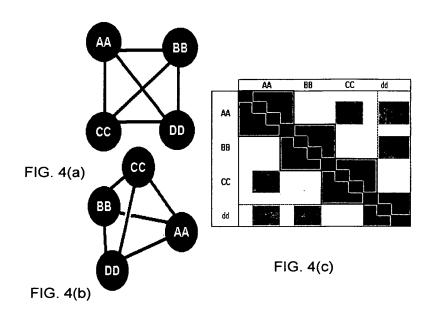


FIG. 4 - PRIOR ART

| | В | D | G | Α | C | E | Н | F |
|-----|---|---|---|---|---|---|---|---|
| B | | × | × | | | | | |
| Ď | X | | Х | | | | | |
| G | Х | × | | | | | | |
| Ã | | | | | X | × | × | |
| C | | | | X | | Х | × | |
| Ē | | | | × | × | | × | |
| JEE | | | | × | × | × | | |
| F | | | | | | | | |

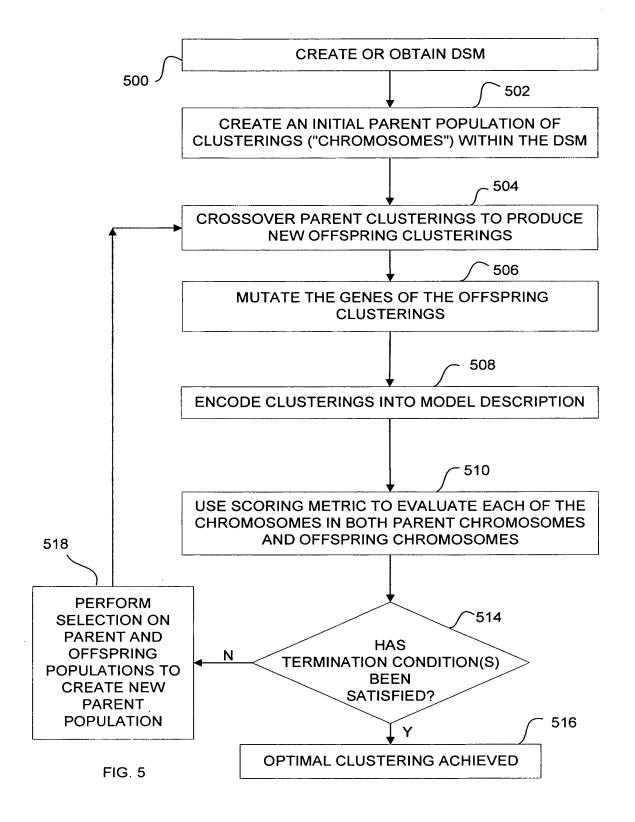
| Node | Α | В | С | D | Е | F | G | Н |
|-----------|---|---|---|---|---|---|---|---|
| Cluster 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| Cluster 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| Bus | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

FIG. 7

FIG. 6

| Length | $\log n_n$ | $3\log n_n$ | $\log n_n$ | $4\log n_n$ | |
|-------------|------------|-------------|------------|-------------|--|
| Description | 3 | BDG | 4 | ACFH | |

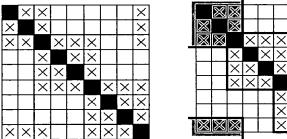
FIG. 8



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INPUT PROBLEM OUTPUT RESULT (a) TWO NON-OVERLAPPING CLUSTERS. (b) THREE OVERLAPPING CLUSTERS. $\times \times \times \times \times$ $\times \times \times \times$

(c) THREE OVERLAPPING CLUSTERS WITH A BUS.



(d) 3-DIMENSIONAL OVERLAPPING CLUSTERS. THE SHADOWED PART FORMS A CLUSTER.

FIG. 9

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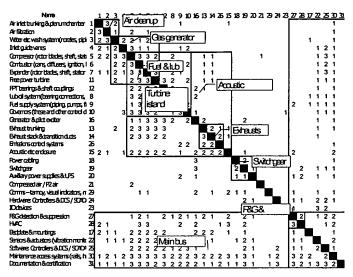


FIG. 10 - PRIOR ART

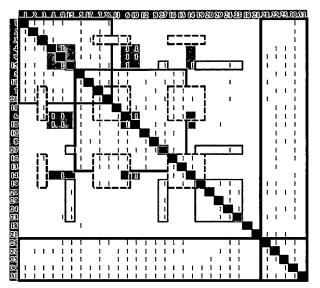


FIG. 11

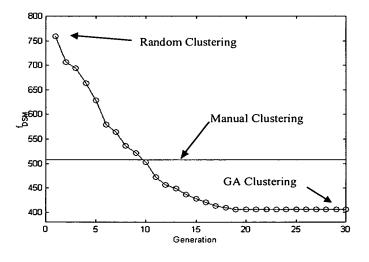


FIG. 12

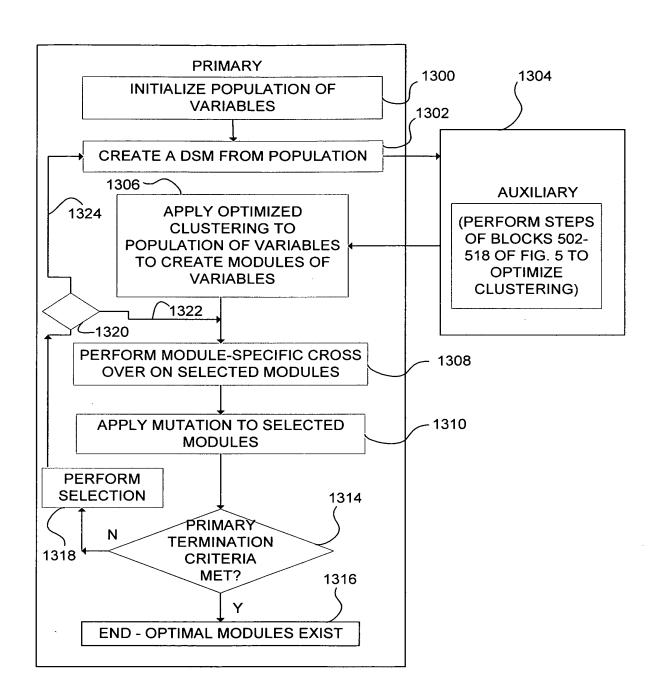


FIG. 13